A CENTURY OF CONSERVATION
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Montana Fish, Wildlife & Parks

March 6, 2001

1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Endangered Species Coordinator
Nongame Coordinator
Great Falls Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Lewis and Clark County Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Mr. John Krause, P.O. Box 362, Augusta, MT 59410

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for a Future Fisheries Project tentatively planned to stabilize 1,865 feet of stream channel on Elk Creek (So. Fork of Sun River) by adjusting channel morphology, installing root wads and tree revetment, and restoring the riparian vegetative community. This proposed project is located on property owned by John Krause approximately 12 miles southwest of the town of Augusta in Lewis and Clark County.

Please submit any comments that you have by 5 P.M., April 6, 2001 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
e-mail: mlere@state.mt.us

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Elk Creek Channel Restoration Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 that directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purposes of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. This project is being proposed to restore the dimension, pattern and profile of 1,865 feet of Elk Creek (South Fork of the Sun River). This project would be a continuation of a restoration project conducted on an adjacent upstream reach. Elk Creek is a spawning and rearing tributary for brown trout and rainbow trout migrating from the main stem of the Sun River. This reach of Elk Creek also supports resident populations of these two trout species. The project site is located on property owned by John Krause approximately 12 miles southwest of the town of Augusta in Lewis and Clark County (Attachment 1).

I. Location of Project: This project will be conducted on Elk Creek (So. Fork of the Sun River) located approximately 12 miles southwest of the town of Augusta within Township 19 North, Range 7 West, Section 32 in Lewis and Clark County.

II. Need for the Project: One goal within Montana Department of Fish, Wildlife and Parks six-year operations plan for the fisheries program is to "restore and enhance degraded habitats" by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on public and private lands. This proposed project would help meet this goal.

Elk Creek has been degraded by past stream management practices, including road building, channelization, and possible some overgrazing by livestock. Additionally, a large wildfire moved down the drainage in 1988 and burned a majority of the woody riparian vegetation, including all of the large woody debris. This past activity has resulted in accelerated bank erosion along a number of meander bends, resulting in channel degradation and poor fish habitat. This project proposes to stabilize a total of 1,865 feet of stream reach by restoring the dimension, pattern and profile of the channel. Additionally, the project calls for shaping cut banks; installing root wads and tree revetment; and planting willow along the margin of the channel. The project is intended to compliment a previous restoration project that had been successfully completed on an adjacent reach of stream.

III. Scope of the Project:

The proposal calls for stabilizing approximately 1,865 feet of stream channel by adjusting the morphology of the channel, installing root wads and tree revetment on eroding meander bends and restoring the riparian vegetative community with willow plantings, sod placement and improved grazing management (Attachment 2). Fencing will be installed as needed to protect

newly treated sites from livestock grazing. Oversight of project construction will be provided by personnel from the U.S. Fish and Wildlife Service. This project is expected to cost $26,500.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $7,000.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Stabilizing the existing channel is expected to create a healthier habitat for aquatic life by reducing sediment input, creating pools and providing overhead cover. Expected improvements in the aquatic habitat should enhance both resident trout populations in the stream and migrant populations from the main stem of the Sun River. Habitat for riparian dependent wildlife would also be improved by enhancing the riparian vegetative community through the planting of willow along the stream margin. Project benefits would be additive to those generated through a previously completed restoration project located on an adjacent reach of stream.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions to meet short-term water quality standards and protect aquatic biota. A 310 permit (Natural Streambed and Land Preservation Act) will be obtained from the local Conservation District and the U.S. Army Corp of Engineers will be contacted for requirements to meet the federal Clean Water Act (404 permit). In the long term, stabilizing the existing channel would reduce the contribution of fine sediment to downstream areas, thereby improving the overall quality of downstream waters.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed by project construction, but would recover quickly following proposed re-vegetation efforts and riparian fencing. Overall, the project is expected to reduce bank erosion and improve channel stability.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover, primarily grasses, would be disturbed during the period of construction. However, proposed re-vegetation efforts and the installation of riparian fencing would act to mitigate these disturbances.

5. Aesthetics.

Aesthetics would be enhanced by restoring an unstable reach of stream to a more healthy and natural stream environment. Approximately 1,865 feet of stream channel would be stabilized through proper channel re-alignment and the installation of root wads on eroding meander bends. Aesthetics would be further enhanced by restoring the woody vegetation component within the riparian corridor.

9. Historic and archaeological sites

The proposed project will likely require an individual Army Corp of Engineers 404 permit. Therefore, the State Historic Preservation Office will be contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

It is anticipated that the stabilization of 1,865 feet of Elk Creek would improve overall aquatic habitat and, as a result, would enhance trout populations residing in the stream. Migrant trout populations from the main stem of the Sun River also would be enhanced. Consequently, the recreational fishery in both Elk Creek and the Sun River is expected to improve. Fishing access is provided to the public by permission from the landowner.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this segment of Elk Creek will remain unstable. This ongoing instability will result in continued bank erosion, excessive sediment loading and the loss of fish habitat. In addition, habitat for riparian dependent wildlife will remain in a degraded condition. Recreational opportunities associated with fish and wildlife resources will remain reduced and aesthetics will continue to be impaired. An adjacent reach of stream that was recently restored also would be threatened by this continued channel instability.

2. The Proposed Alternative

The proposed alternative is designed to adjust the morphology of the channel, stabilize the stream banks by installing root wads, and restore the riparian vegetative community by planting willow and installing fencing. These activities would provide for greater channel stability and reduce sediment loading, resulting in a healthier habitat for aquatic life. Planting willow along the stream margin would create more diverse habitat for

riparian dependent wildlife. This alternative would improve fish and wildlife habitat, aesthetics and water quality within the project area and would be expected to increase trout populations in both Elk Creek and the main stem of the Sun River.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

   We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

   The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA will be published on Montana Fish, Wildlife and Park's web page: fwp.state.mt.us.

3. Duration of comment period?

   Public comment will be accepted through 5 P.M. on April 6, 2001.

4. Person responsible for preparing the EA.

   Mark Lere, Program Officer
   Habitat Protection Bureau
   Fisheries Division
   Montana Department of Fish, Wildlife and Parks
   P.O. Box 200701
   Helena, MT 59620

   Telephone: (406) 444-2432
   e-mail: mlere@state.mt.us

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title: Elk Creek Channel Restoration Project

Division/Bureau: Fisheries Division -Future Fisheries Improvement
Description of Project The project is being proposed to restore the dimension, pattern and profile of 1,865 feet of Elk Creek (So. Fork of Sun River). Elk Creek is a spawning and rearing tributary for brown trout and rainbow trout migrating from the main stem of the Sun River. The stream also supports resident populations of these two species of trout. This project would be a continuation of a restoration project conducted on an adjacent upstream reach of stream. The project site is located on property owned by John Krause approximately 12 miles southwest of the town of Augusta in Lewis and Clark County.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

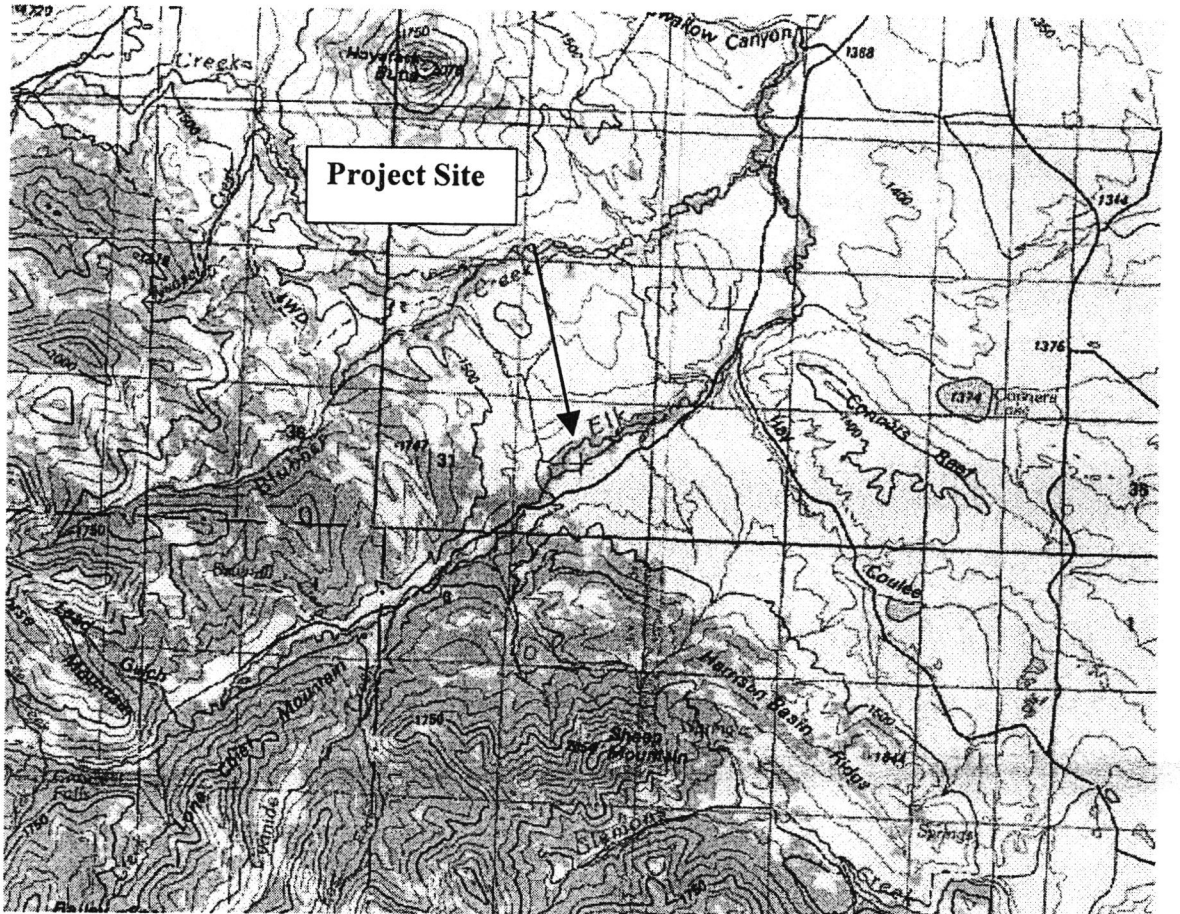
Other groups or agencies contacted or which may have overlapping jurisdiction Lewis and Clark County Conservation District, NRCS, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

Individuals or groups contributing to this EA Sue McNeal, U.S. Fish and Wildlife Service

Recommendation concerning preparation of EIS No EIS required.

EA prepared by: Mark Lere

Date: February 15, 2001



Attachment 1. Map showing project location on Elk Creek.

ATTACHMENT 2 - PLANAR VIEW
And CONCEPTUAL DESIGN
Krause's Elk Creek Restoration Project